

CLAIMS

1. A video signal judgment circuit for detecting the condition of a video signal compounding a picture signal and a synchronization signal comprises

a synchronization separation unit adapted to: filter an inputted video signal with a low-pass filter having a cutoff frequency adjustable by a first control signal; separate a synchronization signal from the filtered video signal to output a pulsed synchronization detection signal, and

a video signal judgment unit adapted to compare a detection signal formed on the basis of said synchronization detection signal with a judgment reference value that is adjustable by a second control signal and output a judgment signal based on the comparison.

2. The video signal judgment circuit according to claim 1, further including a logic circuit for outputting said first and second control signals to adjust said cutoff frequency and judgment reference value upon receipt of an external instruction signal.

3. The video signal judgment circuit according to claim 2, wherein each of said first and second control signals has a serial data form.

4. The video signal judgment circuit according to claim 1 or claim 2, wherein said synchronization separation unit includes:

a low-pass filter having a variable resistor and a capacitor, the resistance of said resistor adjustable by said first control signal to

regulate said cutoff frequency of said low-pass filter; and
a synchronization separation circuit for separating a
synchronization signal from said video signal filtered out with said
low-pass filter to output a pulsed synchronization detection signal.

5. The video signal judgment circuit according to claim 1 or claim 2,
wherein said video signal judgment unit includes:

a mono-multi circuit that undergoes mono-stable operation in
response to said synchronization detection signal to output a
mono-multi output signal having a pulse width regulated according to
the period of cycle of said synchronization detection signal but stop said
mono-multi output signal when no synchronization detection signal is
fed in a predetermined period of time;

a smoothing circuit for smoothing said mono-multi output signal
and outputting the smoothed signal as said detection signal; and

a detection judgment comparison circuit including a first
comparator for comparing said detection signal with a first judgment
reference value adjusted by said second control signal, said detection
judgment comparison circuit adapted to output a judgment signal based
on the comparison made.

6. The video signal judgment circuit according to claim 5, wherein said
mono-multi circuit may includes:

a capacitor chargeable through a charging resistor;
a switch element connected in parallel with said capacitor and
switched on in accordance with said synchronization detection signal;
a comparator for generating a mono-multi output signal when

the voltage of said capacitor exceeds a predetermined voltage; and
a time-limit control circuit for stopping said mono-multi output
signal when no synchronization detection signal is fed in a
predetermined period of time.

7. The video signal judgment circuit according to claim 5, wherein said
detection judgment comparison circuit further includes a second
comparator for comparing said detection signal with a second judgment
reference value higher than said first judgment reference value, said
detection judgment comparison circuit adapted to output said judgment
signal when said detection signal exceeds said first judgment reference
value but is less than said second judgment reference value.

8. The video signal judgment circuit according to claim 2, wherein said
logic circuit and at least those circuits of said synchronization
separation unit and said video signal judgment unit that are regulated
by said first and second control signals of said logic circuit are
integrated in a semiconductor IC.